

highest or lowest contract price candidate within the tenderable range of the contract, and attempting to decode each of said plurality of bids using said next predetermined decode parameter,

wherein said plurality of bids are attempted to be decoded using successive predetermined decode parameters corresponding to successive contract price candidates until at least one bid is successfully decoded.

REMARKS

The 20 November 2002 official action addressed claims 1-10. Claims 1-10 are amended and remain pending.

Drawings

Approval of the formal drawings filed on 25 September 2002 is requested.

Claim amendments

The claims are amended to address the portions noted in the rejection under Section 112.

The claims are further amended to clarify that the recited encoding and decoding parameters are predetermined parameters that correspond to contract price candidates.

No new matter is added.

Prior art rejections

Claim 9 was rejected under 35 USC §102(e) as being anticipated by Franklin (U.S. 6,055,518), and the remaining claims were rejected under 35 USC §103(a) as being obvious over Franklin. It is believed that the patentable distinctions of the claimed invention over Franklin will be apparent from the following discussion.

The key feature of the claimed invention for purposes of this reply is that each possible bid has a corresponding unique predetermined code parameter

that is used for encoding that bid. In other words, if a bidder wants to bid \$100, the bidder encodes the \$100 bid using the predetermined code parameter that corresponds to a bid of \$100. On the other hand, if the bidder wants to bid \$99, the bidder encodes the \$99 bid using a different predetermined code parameter that corresponds to a bid of \$99.

Each bid value also has a predetermined decode parameter associated with it. The server that receives the bids knows the predetermined decode parameters that correspond to each possible bid (each "contract price candidate" in the "tenderable range" of the auction). To determine the winner of the auction, the server applies the highest (or lowest) decode parameter to all bids, and determines whether any of the bids is successfully decoded. For example, if the tenderable range is \$90 - \$110, and the highest bidder is the winner, then the server starts by applying the \$110 decode parameter to each bid. If someone has bid \$110, that bid will be successfully decoded because it was previously encoded with the predetermined \$110 encode parameter. On the other hand, if no one has bid \$110, none of the bids will be successfully decoded. In that case, the server knows that no one has bid \$110, and this has been determined without opening any of the bids. The server then applies the \$109 decode parameter to each bid to determine whether anyone bid \$109. The process continues until a bid is successfully decoded. For example, if the highest bidder has bid \$105, this will be detected when the \$105 decode parameter is applied to all bids and the \$105 bid is successfully decoded. In this example, the highest bid wins the auction. In a case where the lowest bid is to be determined, the server would decode starting with the decode parameter for the lowest bid and work its way up. An advantage of these claimed methods is that only the winning bids are decoded, thus preserving the anonymity of other bidders and their bid amounts.

Claim 1 describes the structural components in a system comprising a bidder that encodes a bid using the code parameter corresponding to the amount of the bid, and a bid receiver that successively attempts to decode all received bids using the decode parameters corresponding to successive bid amounts.

Claim 9 describes the method performed by the bidder, and claim 10 describes the method performed by the bid receiver.

Franklin also discloses an auction system. However, based on applicant's review, it appears that Franklin does not code or decode bids using predetermined encode and decode parameters that correspond to amounts of bids. Rather, Franklin focuses on providing a bid receiver system that is comprised of multiple servers, where each server receives a portion of each bid (see summary provided at col. 8, lines 4-30) so that no single server can manipulate the auction through the fraudulent bidding schemes outlined at col. 3, lines 15-50.

Franklin does teach that each bidder may use an individual private/public key scheme (e.g. col. 4, lines 19-24). However, this means that the code used by the bidder corresponds to the bidder, whereas the present claims specify that the code used by the bidder corresponds to the bid amount, rather than to the bidder. In other words, in Franklin two bidders who bid the same amount will encode those bids using their own different individual codes, whereas in the claimed invention two bidders who bid the same amount will encode those bids using the same code that corresponds to that amount.

Further, Franklin does not use a decoding scheme where the decode parameter for a particular bid value is applied to all coded bids, then the next lowest (or highest) is applied to all bids, then the next lowest and so on until a winning bid is determined. Rather, Franklin simply opens all bids (col. 9, lines 3-36), and after determining their validity, determines the winner by applying a rule to the opened bids (col.9, lines 53-57). Thus Franklin does not operate in the manner claimed, in which the system attempts to open all bids using successive predetermined decode parameters corresponding to successive bid amounts.

Consequently, with respect to independent claim 9, Franklin does not teach a system in which a bidder encodes a bid using a predetermined code parameter that corresponds to the bid price.

With respect to independent claim 10, Franklin does not teach a system that successively applies predetermined decode parameters that correspond to

contract price candidates to all bids until a bid is successfully decoded, indicating that it is the winning bid.

With respect to independent claim 1, Franklin does not teach encoding a bid using a predetermined code parameter that corresponds to the bid price, or applying predetermined decode parameters that correspond to respective contract price candidates to all received bids until a winning bid is successfully decoded using one of the predetermined decode parameters.

The remaining claims are dependent from claim 1 and are distinguished for the reasons given for claim 1 as well as for the additional novel features that they recite.

The foregoing amendments and remarks address all bases for rejection and are believed to place the case in condition for allowance. The examiner is invited to contact the undersigned to resolve any remaining issues.

Respectfully submitted,

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FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5109
Telephone: (202) 672-5407
Facsimile: (202) 672-5399



Ronald Coslick
Registration No. 36,489



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kazue SAKO
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VERSION SHOWING CHANGES MADE IN
REPLY TO 20 NOVEMBER 2002 OFFICIAL ACTION
UNDER 37 CFR§1.111

Commissioner for Patents
Box NON-FEE AMENDMENT
Washington, D.C. 20231

Sir:

In reply to the 20 November 2002 official action, the application is amended as follows:

In the claims:

1. (Twice Amended) An electronic tender system for accepting as a contract price the highest or lowest price among bids, comprising:

a bidder sub-system including:

a code parameter acquisition section for ~~receiving a bid~~
~~selected by the bidder sub-system within a tenderable range, and~~
for acquiring a predetermined code parameter corresponding to a
bid selected by the bidder sub-system within a tenderable range the
bid,

a code processing section for encoding the bid selected by
the bidder sub-system using the predetermined code parameter

obtained by said code parameter acquisition section to encode said bid, and

a transmission section for sending a message including an encoded bid encoded by said coding section to a tender opening sub-system, and

a tender opening sub-system including:

a reception section for receiving messages from bidder sub-systems including encoded bids until a closing time,

a candidate price selection section for sequentially selecting contract price candidates beginning with one of a highest and a lowest within said tenderable range,

a decode parameter acquisition section for acquiring a predetermined decode parameter corresponding to a contract price candidate selected by the selection section, and

a determination section for decoding encoded bids using a predetermined decode parameter corresponding to a contract price candidate selected by the selection section to determine whether a bid that is the same as the contract price candidate selected by the selection section exists among encoded bids received by the reception section.

2. (Twice Amended) The electronic tender system as claimed in claim 1, wherein the code processing section of the bidder sub-system encodes a bid value using the predetermined code parameter obtained by the code parameter acquisition section, and

wherein the ~~retrieve~~-reception section of the tender opening sub-system includes a decoding section for sequentially decoding encoded bids received by the reception section using the predetermined decode parameter acquired by the decode parameter acquisition section, and a judgment section for judging that a coded bid is identical to a contract price candidate selected by the selection section when the decoding result is equal to ~~said~~-a fixed value.

3. (Twice Amended) The electronic tender system as claimed in claim 1, wherein the code processing section of the bidder sub-system performs encoding using a predetermined public key corresponding to the bid, and wherein the decoding section of the tender opening sub-system performs a decoding operation using a secret key corresponding to the predetermined public key corresponding to the contract price candidate.

4. (Twice Amended) The electronic tender system as claimed in claim 2, wherein the code processing section of the bidder sub-system performs encoding using a predetermined public key corresponding to the bid, and wherein the decoding section of the tender opening sub-system performs a decoding operation using a secret key corresponding to the predetermined public key corresponding to the contract price candidate.

5. (Twice Amended) The electronic tender system as claimed in claim 1, wherein said tender opening sub-system includes an announcement section for announcing one of a portion of a predetermined decode parameter acquired by the decode parameter acquisition section and decoding results obtained in the determination section for each contract price candidate.

6. (Twice Amended) The electronic tender system as claimed in claim 2, wherein said tender opening sub-system includes an announcement section for announcing one of a portion of a predetermined decode parameter acquired by the decode parameter acquisition section and decoding results obtained in the determination section for each contract price candidate.

7. (Twice Amended) The electronic tender system as claimed in claim 3, wherein said tender opening sub-system includes an announcement section for announcing one of a portion of a predetermined decode parameter acquired by the decode parameter acquisition section and decoding results obtained in the determination section for each contract price candidate.

8. (Twice Amended) The electronic tender system as claimed in claim 4, wherein said tender opening sub-system includes an announcement section for announcing one of a portion of a predetermined decode parameter acquired by the decode parameter acquisition section and decoding results obtained in the determination section for each contract price candidate.

9. (Amended) A method for placing a bid for a contract, comprising:
determining a bid price to be used in a bid;
obtaining a predetermined code parameter corresponding to the bid price, wherein different predetermined code parameters correspond to respective different bid prices;
encoding the bid in accordance with the predetermined code parameter;
and
transmitting a message including the encoded bid to a bid receiving system.

10. (Amended) A method for determining a contract price from received bids, comprising:
receiving a plurality of bids for the a contract;
determining a predetermined decode parameter corresponding to one of a highest and a lowest contract price candidate within a tenderable range of the contract, wherein different predetermined decode parameters correspond to respective different contract price candidates;
attempting to decode each of said plurality of bids using said predetermined decode parameter;
if at least one of said plurality of ~~bids~~ bids is decodeable using said predetermined decode parameter, determining that said contract price is equal to a price of said at least one bid; and
if none of said plurality of bids is decodeable using said predetermined decode parameter, determining a next predetermined decode parameter corresponding to a next closest contract price candidate with respect to the highest or lowest contract price candidate within the tenderable range of the

contract, and attempting to decode each of said plurality of bids using said next
~~elosest~~ predetermined decode parameter,

wherein said plurality of bids are attempted to be decoded using
successive predetermined decode parameters corresponding to successive
contract price candidates until at least one bid is successfully decoded.